

ORNITHOLOGICAL LITERATURE

THE FLAMINGOS: THEIR LIFE HISTORY AND SURVIVAL. By Robert Porter Allen. National Audubon Society Research Report No. 5, 1956: 7½ x 10½ in., xv + 285 pp., 16 pls., and 49 figs. Paper-bound, \$3.95.

This fifth in the Research Report series, the third by Robert Porter Allen, makes another important contribution to ornithological knowledge and to the cause of wildlife conservation. Although his study was principally of the survival problems of the West Indian Flamingo (*Phoenicopterus ruber*), the author has nevertheless incorporated into it a thoroughgoing survey of the flamingo populations of the world: of the biology, history, and present status of all six modern representatives of the family. These birds, in most situations, present singularly difficult problems to the field student; and Allen's studies of *P. ruber* involved 24 trips outside the United States, over a period of some three years. A wealth of original behavior data is presented. Fully as important, however, in the text as a whole, are the extensive comparisons with other major studies (notably those of Frank Chapman in America; Gallet, Lomont, and Yeates in Europe; and Salim Ali in Asia), and the very detailed analyses of the literature in general.

Such breadth of treatment inevitably involved a huge problem of selection and of organization, which in my opinion was only partially resolved. To compare one species of flamingo with another at some points, and to lump them all as a sort of single composite population at others, while understandable, leads to some confusion of interpretation. One reading the work consecutively will find an apparent repetitiousness, as when historical accounts of breeding colonies are discussed in part as "Distribution and Migration" and in part under different headings of "The Breeding Cycle." Thoroughness can easily lapse into redundancy: certain of the statistical discussions have been carried farther than the resulting conclusions would seem to justify; elsewhere, quotations from the literature seem to have been multiplied beyond the point of necessity—and I noted instances of the same passage appearing, largely verbatim, in two separate sections. But notwithstanding these weaknesses, of which the total result has been merely to render an otherwise fascinating and very readable account a little less so by virtue of its very bulk, the book has a great deal to offer. It begins by tracing the fossil record of the group, then building up a picture of original distributions and movements from the time of our earliest written references. A detailed study of flamingo habitats follows, with analyses of the small organisms available as food in the mud and slime of these most inhospitable situations, and of the feeding operations of the birds themselves. The steps of the breeding cycle are treated in order. Excellent descriptions of the pre-pairing and pairing displays, and of the incubation and care of the young, are enhanced by photographs and by text figures prepared from field sketches. Of special interest is the tracing of "The Dampier Myth," concerning the alleged straddling posture of the incubating flamingo on the nest mound, and of the steps in its eventual refutation. Vast flamingo flocks remain in Asia and in Africa, and large numbers in South America. Yet, with the West Indian Flamingo reduced to a quarter of its former abundance (though now approximately holding its own), threats existing to colonies in other parts of the world, and the present status of the little *Phoenicoparrus jamesi* of the high Andes quite unknown, the long-range conservation picture appears a gloomy one. The present study afforded Allen unique opportunity for censusing the *Phoenicopterus ruber* population, and for studying it in the light of present-day conditions. While admitting in realistic fashion the human problems involved, he notes increasing support in many quarters for such conservation groups as the Society for the Protection of the Flamingo in the Bahamas.

Despite the extreme sensitivity of these birds to any form of disturbance while breeding, he holds out distinct hope for the success of present and future protective measures.

The format of the book is attractive, the print good, typographical errors very few, the color plates in the copy at hand only fair. The bibliography, of an estimated 700 titles, attests the labor that went into the preparation of the report, and is in itself a major contribution; the index is surprisingly complete, with references even to important literature citations by author. "The Flamingos" will be enjoyed by many; it will do a great deal to disseminate knowledge of one of our most beautiful birds, and to stimulate the efforts being made on its behalf. Except for tropical storms, man, through one agency or another, has been almost the only threat to flamingo survival; common-sense measures, put into effect while there is yet time, can certainly preserve the bird for the enjoyment of future generations.—WILLIAM A. LUNK.

A HALF CENTURY OF CHANGE IN BIRD POPULATIONS OF THE LOWER CHIPPEWA RIVER, WISCONSIN. Irvén O. Buss and Helmer Mattison. Milwaukee Public Museum Publications in Ornithology No. 1, 1955: 7 x 10¼ in., 319 pp., 26 illus. Paper-bound, \$5.00.

The large number of local reports on bird distribution, migration, population changes, and related subjects points to the wide interest that exists in this field today. All these published reports aid in extending this interest in birds and the resultant concern over the preservation of our wildlife in the face of skyrocketing human populations and rapid exploitation of our natural areas. We welcome the present book's contribution toward the attaining of this goal.

This is another somewhat expansive resumé of the birds of an area slightly more than one county (Dunn) in extent in western Wisconsin approximately 75 miles east of Minneapolis and St. Paul, Minnesota. The foreword is by Wallace Grange. An introduction is followed by a very brief discussion of "Life Zones and Faunal Areas." Four pages are devoted to a description of the area including the changes that have occurred because of man's occupancy. "Objectives," "Time, Location, and Presentation of Records," and "Acknowledgments" follow. The major part of the work (pp. 21-277) is devoted to the "Annotated List of the Birds of the Lower Chippewa Area," together with notes on 20 species of probable occurrence. An appendix comprises nine pages of "Supplemental Records of Waterfowl Hunting and Birds Nesting at Elk Lake." Included is a table of recent Wisconsin and Dunn County waterfowl-kill data from the files of the Wisconsin Conservation Department. A list of "Scientific Names for Common Names of Plants Used in Text" is given. Then follow 10 pages of measurements and weights of nearly 500 individual birds of 169 species. References to 79 articles in the literature, and a 13-page index complete the book.

This book is presented mainly as a comparison of 12 years (1939-51) of field observations by the authors, together with those of credited co-workers (evaluated by the authors), and the observations of J. N. Clark combined with data from 800 specimens collected by him. Mr. Clark's field work was done in and around Meridean, Wisconsin, between 1886 and 1901.

Although this aim is carried out in the text, one is somewhat disappointed to find that in only a few instances are Mr. Clark's notes of sufficient value to enable the authors to make significant comparisons with the abundance of the species concerned. For this reason, some may feel that the book's title places too great emphasis on this feature of the work and that the book perhaps should have been presented simply as the "Birds of the Lower Chippewa River, Wisconsin" with notes on population changes in the last 70 years.